PLAY-BASED STEM EXHIBIT ENGAGEMENT OBSERVATION TOOL

Date: ____________________  Exhibit title: ____________________  Start time: ____________________  # of children at exhibit / in social group: ____________________

Observer: ____________________  End time: ____________________  # of adults in social group: ____________________

CHILD'S ACTIONS

- Circle one: Child is observing or experiencing STEM phenomena. Name or describe the phenomenon: ____________________

- Circle one: Child is playing with a game or is playing a game

- Circle one: Child is playing with objects that can be picked up and moved

- Circle one: Play where the child is exploring and processing information through kinesthetic activities.

- Circle one: Play where the child is experiencing and processing information through their senses.

- Circle one: Play where the child engages in pretend, imaginative, fantasy, or play that involves alternate realities.

SOCIAL CONTEXT OR ACTIONS

- Circle one: Play is with someone else; interactive or jointly experienced.

- Circle one: Play is not with someone else. The child watches others play as an onlooker or is playing independently alongside or parallel to an adult or peer.
ROLE OF ADULTS

- Adult is supporting the child’s interaction with the exhibit, acting as an audience.
- Adult is modeling how to engage with the STEM phenomenon through STEM practices.
- Adult is providing inquiry prompts to guide engagement. These are questions, not statements.
- Adult is directing interactions with the exhibit or engagement with practices, showing the child how and what to do.
- Adult is explaining what is happening at the exhibit or what is happening because of engagement.

STEM PRACTICES AT PLAY

THE CHILD ALONE OR WITH OTHERS IS:

- Using observations or experience with phenomena and systematically applying observations, experiences, or evidence of phenomena.
- Systematically testing variables based on observations or experience with the phenomena.
- Designing solutions by generating ways to solve a problem.
- Revising or making a change to design, implementation, rebuilding in a different form, or repeating to test.
- Using evidence or making arguments to make a claim or suggesting a solution supported by evidence (e.g., from their observations) and describing how the evidence supports the claim.
- Communicating STEM information to others around them (can be multiple modalities).
- Asking questions about a STEM phenomenon.
- Making predictions or a guess about what will happen based on observations or prior experience/knowledge. This should be explicit with direct evidence.

OBSERVATION DETAILS

USE THIS SPACE TO NOTE WHAT YOU OBSERVE AND OTHER RELEVANT INFORMATION.